AMENDMENTS TO THE CLAIMS

A marked-up version of the claims that will be pending following entry of the present amendments showing the amendments made herein follows. Matter that has been deleted from the claims is indicated by strikethrough and matter that has been added is indicated by underlining.

1.   (Currently amended) A~~n~~ n ~~composition comprising~~ isolated single-cell bipotent hepatic progenitors which express~~es~~ at least one intercellular adhesion molecule (ICAM) antigen and does not express major histocompability complex (MHC) class Ia antigen, in which the bipotent hepatic progenitor has a capacity to differentiate when exposed to differentiation-inducing growth conditions.

2-13.   (Cancelled)

14.   (Currently amended) A~~n~~ n ~~composition comprising~~ isolated single-cell hepatic progenitors, ~~their~~ its progeny, or a combination thereof in which the hepatic progenitor and its progeny:

(a)   express at least one MHC class Ib antigen;

(b)   exhibit a numerically higher sidescatter value determined by flow cytometry than the sidescatter value of nonparenchymal cells of the same species;

(c)   express alpha-fetoprotein, albumin, CK 19, or combinations thereof; and

(d)   wherein the hepatic progenitor is capable of differentiating when exposed to differentiation-inducing growth conditions.

15-26. (Cancelled)

27.   (New) A composition consisting essentially of isolated single-cell bipotent hepatic progenitors which express at least one intercellular adhesion molecule (ICAM) antigen and do not express major histocompability complex (MHC) class Ia antigen, in which the bipotent hepatic progenitors have a capacity to differentiate when exposed to differentiation-inducing growth conditions.

28.   (New) A composition consisting essentially of isolated single-cell hepatic progenitors, their progeny, or a combination thereof in which the hepatic progenitors and their progeny:

(a)   express at least one MHC class Ib antigen;

(b)   exhibit a numerically higher sidescatter value determined by flow cytometry than the sidescatter value of nonparenchymal cells of the same species;

(c)   express alpha-fetoprotein, albumin, CK 19, or combinations thereof; and

(d)   wherein the hepatic progenitors are capable of differentiating when exposed to differentiation-inducing growth conditions.

29.   (New) A composition comprising a population of isolated single cells enriched in bipotent hepatic progenitors which express at least one intercellular adhesion molecule (ICAM)

antigen, do not express major histocompability complex (MHC) class Ia antigen, and have a capacity to differentiate when exposed to differentiation-inducing growth conditions.

30.   (New) The composition of claim 29 in which the bipotent hepatic progenitors express at least one MHC class Ib antigen.

31.   (New) The composition of claim 30 in which the MHC class Ib antigen is weakly expressed in comparison to expression of ICAM as indicated by a dull positive response to immunostaining with fluorescent anti-MHC class 1b antibody in comparison to a positive response to immunostaining with anti-ICAM antibody.

32.   (New) The composition of claim 29 in which the ICAM antigen is ICAM-1.

33.   (New) The composition of claim 29 in which the hepatic progenitors have a sidescatter value determined by flow cytometry which is numerically less than the sidescatter value of mature parenchymal cells of the same species.

34.   (New) The composition of claim 29 in which the hepatic progenitors have a sidescatter in flow cytometry which is between the sidescatter of nonparenchymal cells of the same species and the sidescatter of mature parenchymal cells of the same species.

35.   (New) The composition of claim 29 in which the hepatic progenitors are capable of dividing and giving rise to progeny.

36. (New) The composition of claim 35 in which the hepatic progenitors exhibit a capacity for clonal growth.

37. (New) The composition of claim 36 in which the clonal growth requires extracellular matrix.

38. (New) The composition of claim 35 in which the progeny grow in piled-up clusters.

39. (New) The composition of claim 35 in which the progeny express alpha-fetoprotein, albumin, CK 19, or combinations thereof.

40. (New) The composition of claim 35 in which the progeny are hepatocytes or biliary cells.

41. (New) The composition of claim 40 in which the hepatocytes or biliary cells additionally express a cell adhesion molecule that can be used for selection or identification of a particular subpopulation.

42. (New) A composition comprising a population of isolated single cells enriched in hepatic progenitors, their its progeny, or a combination thereof in which the hepatic progenitors and their progeny:

(a)   express at least one MHC class Ib antigen;

(b)   exhibit a numerically higher sidescatter value determined by flow cytometry than the sidescatter value of nonparenchymal cells of the same species;

(c)   express alpha-fetoprotein, albumin, CK 19, or combinations thereof; and

(d)   wherein the hepatic progenitors are capable of differentiating when exposed to differentiation-inducing growth conditions.

43.   (New) The composition of claim 42 in which the hepatic progenitors, their progeny, or a combination thereof are derived from endoderm or bone marrow.

44.   (New) The composition of claim 43 in which the endoderm is selected from liver, pancreas, lung, gut, thyroid, gonad, or combinations thereof.

45.   (New) The composition of claim 43 in which the progenitors express ICAM antigen.

46.   (New) The composition of claim 45 in which the ICAM antigen is ICAM-1.

47.   (New) The composition of claim 43 in which the progenitors do not express MHC class Ia.

48.   (New) The composition of claim 43 in which the progenitors weakly express at least one MHC class Ib antigen in comparison to expression of ICAM as indicated by a dull

positive response to immunostaining with fluorescent anti-MHC class 1b antibody in comparison to a positive response to immunostaining with anti-ICAM antibody.

49.   (New) A cell culture comprising a population of single-cell bipotent hepatic progenitors of claim 1.

50.   (New) The cell culture of claim 49 further comprising extracellular matrix.

51   (New) The cell culture of claim 50 in which the extracellular matrix comprises collagen, fibronectin, laminin, or combinations thereof.

52.   (New) The cell culture of claim 50 further comprising stromal cells.

53.   (New) The cell culture of claim 52 in which the stromal cells are liver stromal cells.

54.   (New) The cell culture of claim 52 in which the stromal cells are embryonic or fetal cells.

55.   (New) The cell culture of claim 50 further comprising a serum-free culture medium.